



IMAGE PROCESSING SYSTEM INTEGRATED INTO THE AX CONTROLLER

High-Speed Image Processing

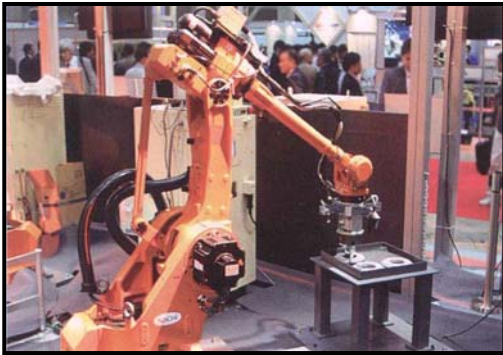
- High-performance digital image processing technology and image defect tolerant search tool delivers outstanding object recognition

Integrated Robot / Vision Controller Unit

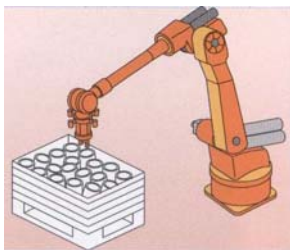
- High-speed robot / vision interface
- Easy to operate and program via the robot teach pendant

Integrated Stereo Recognition Function

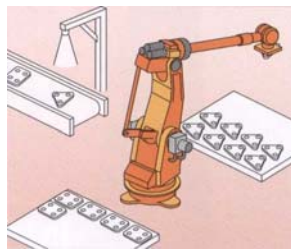
Nachi's proprietary stereo recognition algorithm measures part positions in 3D. The robot excels in "bin picking" applications.



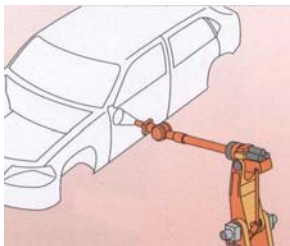
Applications



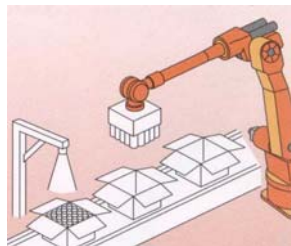
Bin Picking



Multi-Part Processing



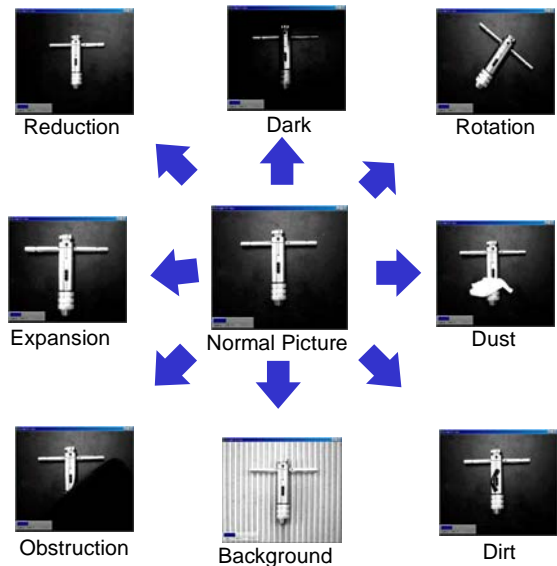
Measurement



Product Inspection

High-Performance Image Processing

Nachi's high-speed search tool tolerates real world factory conditions and correctly identifies parts.



Simple Teach Pendant Operation

The robot and vision integrated AX control offers easy programming in the intuitive Windows™ environment and provides a single point of operation for both robot and vision.



Items		Specifications
Image Input	Camera	RS-170/NTSC
	Number of Cameras	Black/White 4 (maximum)
	Resolution	640x480 pixels 256 grayscale levels
Image Processing	Pre-Processing	Edge, smoothing, morphology, hi-pass filter, and more
	Blob	Hard binarization (fixed, relative, automatic) / soft binarization (fixed, relative)
	Search (Normalized Correlation)	Pattern search
	Rotation Search	Pattern search (rotation, scale, obstruction)
Image Measurement	Data Files	256 measurements x 20 files
	Window	Circle, ellipse, rectangle, generalized rectangle, affinrectangle, full image
	Calibration	2 dimensions, 3 dimensions, for laser lines
	Shift Calculation	Maximum 10 feature point pattern measurement, two points composite measurement, 3D measurement
Peripheral Equipment	Input Operation	Robot teach pendant
	Display	6.5 inch TFT monitor (integrated into the AX controller)
	Data Management	Compact flash
	Robot Communication	Ethernet (connection is possible to a maximum of four AX controllers)
	Robot Function Command	VRESET, VSTART, VSHIFT, VWORK, VDATA, VGROUP, VCHKGRP

For more information, visit the Nachi Robotic Systems Inc. website at www.nachirobotics.com, or e-mail to info@nachirobotics.com



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